

# ***Consumer Confidence Report for year of 2005***

## ***Annual Drinking Water Quality Report***

City of Newton

System ID# 01-18-015

Published APRIL 2006

The City of Newton proudly presents this year's Annual Quality Water Report. Details of this report highlight both the quality of water and service the City currently provides. If have any questions regarding the contents of this report, or general questions regarding your water service, please contact Tim Abernethy, at 695-4312.

## ***Where does Newton's Water Come From?***

The Jacobs Fork River is the primary water source for Newton's drinking water. The city has a secondary source for water, which is the City Lake, this reservoirs holds approximately 45 million gallons. The Jacobs Fork flows approximately 20 miles over solid bedrock where it is well oxygenated and most volatile contaminates are removed. The Jacobs Fork River has no commercial or city discharge facilities located along its 20-mile stretch adding to the purity of the water.

## ***How is Newton's Water Treated for Drinking Purposes?***

Source water from the Jacobs Fork River is treated at The City of Newton Water Treatment Plant. During treatment, source water undergoes a series of processes: coagulation, sedimentation, filtration, and disinfection.

***Coagulation***--chemicals are mixed into the water to form a solid material around small particles in the raw water, causing them to clump together.

***Sedimentation***--particles settle to the bottom of large settling tank and then removed.

***Filtration***--water flows through filters of carbon and sand to remove any remaining particles.

***Disinfection***--chlorine is added to disinfect the water.

## ***What You Need to Know About Your H<sub>2</sub>O.***

Drinking water originates from many places (i.e., oceans, rivers, lakes, streams, ponds, reservoirs, springs, wells, etc. . .), sometimes-traveling great distances before reaching its final destination. As a result, water collects a variety of substances or contaminants on its journey. Some of these contaminants are:

***Microbial contaminants***, such as viruses, bacteria and other pathogens, which may come from septic systems, agricultural livestock operations and wildlife.

***Inorganic contaminants***, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

***Pesticides and herbicides***, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

***Radioactive contaminants***, which can be naturally occurring or be the result of oil and gas production and mining activities.

***Organic chemical contaminants***, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can come from gas stations, urban storm water runoff, and septic systems.

The Following are definitions of substances found in your water:

**NTU-Nephelometric Turbidity Units**, Turbidity units are a measure of the cloudiness of water.

**Parts per Million(ppm) or milligrams per liter(mg/l)**-one part per million corresponds to one minute in two years or one penny in \$10,000.

**Parts per Billion(ppb) or Micrograms per liter-** one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

All drinking water, including bottled water, may reasonably contain small amounts of these contaminants. In accordance with state and federal law, the City Of Newton Water Treatment Plant routinely monitors drinking water for these types of contaminants.

## ***For Your Information***

The EPA prescribes regulations limiting the amount of certain contaminants in drinking water. To this end, the EPA sets Maximum Contaminant Level Goals (MCLG) and Maximum Contaminant Levels (MCL) to ensure your tap water is safe to drink. The Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. The MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for the public health.

**Bacterial results:** You will be glad to know that in the year of 2004 no bacteria contamination was detected in the system. This was after testing over 180 sites.

***Special Concerns:*** Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care provider.

## ***Cautionary Health Statement: Be Advised***

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. **LEAD** Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home will be higher than at other homes in the community because of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. **Note: Newton's water has significantly less than the action level. The last testing was in the year 2003 and will be repeated in the year 2006.** Additional information regarding contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline (1-800-426-4791).

## ***Detected Substances in Newton's Water***

***Table 1. Primary Substances Regulated at the Treatment Plant/ all results of test taken in Jan.2005 unless noted***

Substance	Newton Result	Highest Level Allowed (MCL)	Ideal Goal MCLG	Major Source
Barium	<0.4 mg/l	2 mg/l	2 mg/l	Erosion of natural deposits

(ppm)				
Fluoride (ppm)	1.06 mg/l	4 mg/l	4 mg/l	Water additive which promotes strong teeth; Erosion of natural deposits
Nitrate (ppm)	<1.0 mg/l	10 mg/l	10 mg/l	Leaching from septic tanks, sewage; Erosion of natural deposits. Run-off from fertilizer use.
Turbidity NTU (turbidity units)	All below <.3 NTU max/yr.=.088ntu (12/7/2005)	Max allowed <.3 NTU	<.3 NTU (actual %/yr was 100% compliance/yr.)	Soil runoff

\* A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Table 2. Substances Regulated in the Distribution System**

Substance	Result-	Range	Highest Level	Ideal Goal	Major Sources
TTHM (ppb) Quarterly testing	25.43 ppb yearly average	11.0 to 36.3 ppb	36.3 ppm 4th quarter 2005	<80 ppb yearly average	Chlorination of water
Haloacetic Acids (HAA5)quarterly 2005	17.85 ppb yearly avg.	11.9 to 25.8 ppb	25.8 ppb 3 <sup>rd</sup> quarter 2005	<60 ppb yearly average	Chlorination of water
Total organic carbon Monthly tested	Raw 1.66 ppm Aug., 2005  Filtered <1.0 ppm	1.66 max ppm- <1.0ppm	1.66 ppm(river source)	< 2.0 ppm	Decomposition of organics
Copper (ppm) Tested in 2003 90 <sup>th</sup> percentile	0.186 (ppm) detected	Range  0.208-<0.05 ppm	*Action level=1.3 (ppm)	<1.3 (ppm)	Corrosion of copper pipes

<b>RADIOACTIVITY as Gross Beta tested 8/29/2003</b>	Not detected <0.5 pC/l (9/23/2003)	0 to 4.0 pC/L	Action level if >4.0 pCL	Ideal goal is non or not detected	Natural decay of radioactive materials
---	--	---------------	-----------------------------	---	--

<b>ARSENIC</b> <i>tested</i> <i>1/5/2005</i>	LESS THAN <0.005PPM	NOT DETECTED	NOT DETECTED	NON	FOUND IN SOIL
--	------------------------	-----------------	-----------------	-----	------------------

<b>Sulfate</b>	8.00 ppm (1/5/2005)	0.00 thru 250.00 ppm	Level detected was 8.00 ppm	Ideal goal to be < 250.00 ppm	FOUND IN SOIL
----------------	------------------------	-------------------------	--------------------------------	-------------------------------------	------------------

\*An action level is the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

**Table 3. Unregulated Volatile Organic Chemicals / tested 1/5/2005**

Substance	Level Detected	Violation
Chloroform (ppb)	4.08ppb (1/5/05)	No
Bromodichloromethane(ppb)	1.37 ppb (1/5/05)	No

**SWAP Program: Source Water Assessment Program-** The program is to assess the vulnerability of our drinking water to contamination. The Newton Water source

has 2 water sources , the City Lake and the Jacob Fork River. **Both sources have a moderate (or average) rating.** To view the completed SWAP you can go to the web at

<http://www.deh.enr.state.nc.us/pws/swp>. Or mail a written request to: Source Water Assessment Program-report request, 1634 Mail Service Center, Raleigh NC 27699-1634.

This can also be found at the Newton web site by clicking on the SWAP button.

This CCR was prepared by Tim Abernethy for the City Of Newton.

Tim Abernethy is the ORC at the Newton Water Plant and any questions or comments can be directed to him at the Newton water Plant ph. 695-4312

City Of Newton Web site:: <http://www.newtonnc.gov>